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EXAMINER SCHEIBEL, ROBERT C				
ART UNIT			PAPER NUMBER	
2666				

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/703,699

Applicant(s)

DECALUWE ET AL.

Examiner

Robert C. Scheibel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see section I on page 4, filed 6/7/2004, with respect to the rejection of claim 8 under 35 U.S.C. 112 have been fully considered and are persuasive. The rejection of claim 8 under 35 U.S.C. 112 has been withdrawn.
2. Applicant's arguments, see sections II and III on pages 4-5, filed 6/7/2004, with respect to the rejections of claims 1-4 and 5-8 under 35 U.S.C. 102(e) and 35 U.S.C. 103(a), respectively, have been fully considered and are persuasive. In these two sections, the applicant has argued that in view of the declaration filed under 37 CFR 1.131, the Sharp reference used in the previous office action is not prior art as the applicants have sworn behind the effective filing date of this reference. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of newly found references U.S. Patent 6,189,035 to Lockhart et al and U.S. Patent 5,706,279 to Teraslinna et al as detailed below.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims **1-2 and 4** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,189,035 to Lockhart et al.

Regarding claim **1**, Lockhart discloses a method in an Internet Protocol (IP) data network comprised of a plurality of interconnected IP data switching systems, comprised of: a. receiving at a first IP data switching system a plurality of IP data packets (the packets received at the input buffer 28 of Figure 3 and described from line 66 of column 2 through line 2 of column 3); b. tabulating at said first IP data switching system at least the number of IP data packets received from a particular IP source address during a first time interval, thereby forming a count of IP data packets from a particular source (step 60 in Figure 4); c. storing said count of IP data packets in a memory device for subsequent processing (inherent as the recent packet count is used at a later time (e.g. step 64)).

Regarding claim **2**, Lockhart discloses the steps of: d. reading said count of IP data packets from said memory device (inherent in step 64 of Figure 4; the recent packet count must be read before it can be evaluated); e. selectively discarding IP data packets received at said first IP data switching system that originated from said particular source (steps 64 and 66 of Figure 4).

Regarding claim **4**, Lockhart discloses the limitation that said step of selectively discarding IP data packets includes the step of denying reception of IP data packets from a router based upon a source address in IP data packets upon the determination that the count of IP data packets from a source address exceeds a threshold value (steps 64 and 66 of Figure 4).

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5. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,835,710 to Nagami et al.

Regarding claim 5, Nagami discloses a method in an Internet Protocol (IP) data network comprised of a plurality of interconnected IP data switching systems, the method comprised of a. sending a plurality of IP data packets from a first IP data switching system to a second IP data switching system (the bypass pipe discussed throughout Nagami is used to send IP packets from a first to a second data switching system; Figure 1 shows an example network in which this invention is to be carried out – the two data switching systems can be any two routers 601 from this figure); b. tabulating at said first IP data switching system at least the number of IP data packets sent to a particular IP destination address during a first time interval, thereby forming a count of IP data packets sent to a particular IP destination address (see the packet count field in Figure 18E); c. storing said count of IP data packets sent to a particular IP destination address in a memory device for subsequent processing (the packet count field in Figure 18E).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,189,035 to Lockhart et al in view of U.S. Patent 5,491,801 to Jain et al.

Lockhart discloses all the limitations of parent claim 1 as discussed in the rejection under 35 U.S.C. 102(e) above. Lockhart does not disclose expressly the limitation that the switching system is an IP router of claim 3. Jain discloses a method of performing congestion control at a router by monitoring the data transmitted by particular users (see lines 37-38 of column 5 and Figure 4). As Lockhart's invention is intended to prevent excessive traffic from a particular user, this suggests the use of Lockhart's invention in a router. Lockhart and Jain are analogous art because they are from the same field of endeavor of controlling excessive traffic by a particular user. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Lockhart by implementing his invention as a sub-system in a router, which would be less expensive than creating a stand-alone device to perform the method. Lockhart suggests in lines 22-24 of column 5 that the invention could be implemented as part of another piece of equipment. Therefore, it would have been obvious to combine Jain with Lockhart for the benefit of reducing costs to obtain the invention as specified in claim 3.

9. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,189,035 to Lockhart et al in view of U.S. Patent 5,706,279 to Teraslinna.

Regarding claim 5, Lockhart discloses the steps of a. sending a plurality of IP data packets from a first IP data switching system to a second IP data switching system (see figure 2; the first switching system is the data packet gate 20 and the second switching system is one of the network elements comprising the radio network 16); b. tabulating at said first IP data switching system at least the number of IP data packets sent to a particular IP destination address during a first time interval, thereby forming a count of IP data packets sent to a particular IP destination address (step 60 in Figure 4; however, this is a count of packets from the source address); c. storing said count of IP data packets sent to a particular IP destination address in a memory device for subsequent processing (inherent as the recent packet count is used at a later time). Lockhart does not disclose expressly the limitation that the count value is maintained at the first switching element and that it is a count of packets associated with a given destination. Tersalinna discloses a method whereby network congestion is managed by monitoring the bandwidth usage from or to a particular endpoint as opposed to monitoring each flow (source-destination pair) individually (see abstract and columns 1 and 2). Specifically, in figures 11 and 12, Tersalinna discloses a method of inhibiting the packet flow based on the traffic destined to a particular endpoint. Lockhart and Tersalinna are analogous art because they are from the same field of endeavor of congestion control. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Lockhart to monitor packets based on the destination address of packets (and similarly inhibit packets when necessary) in addition to monitoring based on the source address. The motivation for doing so would have been to avoid wasting network resources by controlling the flow of packets earlier in the network. As suggested by Tersalinna in lines 26-28 of column 15, this will avoid having the radio network 16

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discard the packets. Therefore, it would have been obvious to combine Tersalinna with Lockhart for the benefit of conserving network resources to obtain the invention as specified in claim 5.

Regarding claim 6, with the parent claims addressed by Lockhart as modified above, Lockhart discloses the limitations of d. reading said count of IP data packets from said memory device (inherent in step 64 of Figure 4; the recent packet count must be read before it can be evaluated); e. selectively inhibiting the transmission of IP data packets from said first IP data switching system to said second IP data switching system when the number of IP packets from said first IP data switching system exceeds a predetermined number (steps 64 and 66 of Figure 4).

10. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,189,035 to Lockhart et al in view of U.S. Patent 5,706,279 to Teraslinna and in further view of U.S. Patent 5,491,801 to Jain et al.

Regarding claim 7, Lockhart, as modified, discloses all the limitations of parent claim 5 as discussed in the rejection under 35 U.S.C. 102(e) above. Lockhart does not disclose expressly the limitation that the switching system is an IP router of claim 7. Jain discloses a method of performing congestion control at a router by monitoring the data transmitted by particular users (see lines 37-38 of column 5 and Figure 4). As Lockhart's invention is intended to prevent excessive traffic from a particular user, this suggests the use of Lockhart's invention in a router. Lockhart and Jain are analogous art because they are from the same field of endeavor of controlling excessive traffic by a particular user. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Lockhart by implementing his invention

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as a sub-system in a router, which would be less expensive than creating a stand-alone device to perform the method. Lockhart suggests in lines 22-24 of column 5 that the invention could be implemented as part of another piece of equipment. Therefore, it would have been obvious to combine Jain with Lockhart for the benefit of reducing costs to obtain the invention as specified in claim 7.

Regarding claim 8, Lockhart as modified discloses all the limitations of parent claim 6 as discussed above. Lockhart as modified does not disclose expressly the limitation of sending a packet to a specific router to discard messages received from or sent to a specific IP address. Jain describes a conventional method of congestion control from line 57 of column 3 through line 5 of column 4. In this passage, Jain clearly discloses the limitation of sending a message ("source quench" or "choke" packets) to a source router as a means of inhibiting the flow of packets.

Lockhart as modified and Jain are analogous art because they are from the same field of endeavor of packet routing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the Lockhart to send a source quench packet to the source router when the threshold is crossed. The motivation for doing so would have been to stop these packets as close to the source as possible; this will prevent this extra traffic from loading switching/routing devices in the path from the first to the second IP data router switching system. Therefore, it would have been obvious to combine Lockhart as modified with Jain for the purpose of stopping these packets as close to the source as possible to obtain the invention as specified in claim 8.

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Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,707,817 to Kadambi et al discloses a processor capable of counting packets based on a variety of fields in the packet (including source and destination addresses) and inhibiting these packets when necessary. U.S. Patent 6,205,155 to Parrella also discloses the concept of monitoring packets based on the destination addresses and inhibiting the flow of packets accordingly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 571-272-3169. The examiner can normally be reached on Monday and Thursday from 6:30-5:00 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RCS 9-3-04
Robert C. Scheibel
Examiner
Art Unit 2666

Seema S. Rao
SEEMA S. RAO 9/13/04
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

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